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## THE FEAR OF MACHINES.

HARTLEY BURR ALEXANDER.

THERE are few traits of human nature more curious than is our awe of human nature itself. In the mode of attraction this awe becomes veneration, sometimes idealistic, sometimes superstitious. Idealistic is the veneration of hero, sage, and saint, whose high humanity seems to us a transfiguration wrought by some superhuman grace. Superstitious is our quaint credulity in the wisdom of emotions and intuitions, and above all in the sacrosanct sagacity of tides of public sentiment—the divine voice of the people. ‘Soul,’ we say, is manifested in these things,—‘soul,’ a hidden treasure, not well understood, be it the perquisite of a private temperament or sacramentally shared by a mob. In this mode of attraction our awe becomes a veneration, which may descend to superstition; in the opposite mode of repulsion this same awe of our nature and its manifestations begins with suspicion and mounts to superstitious terror. The suspicion is directed to the unresolved motives with which we credit men, for we deem that there is a subterranean level of impulse beneath human conduct, to which reason gives only a specious surfacing; and, as with all dark volcanic forces, we fear it. The terror is most shown in the presence of those great material and social agencies which form the outward bodiments of our inward desires, and in horrific mode image the soul’s hid lineaments in soulless machines. In all nature there is nothing more brutal than is human device, and on the face of nature is no scar so black as those inflicted by the hand of man. And yet the thing need not be: it is but a crude self-fear that perpetuates the shudder.

## I.

Idiocy is the most horrible of monstrosities—reasonless instinct bearing the mask of man. The like vacant mentality in the scaly saurian moves us only to curiosity or

contempt; it is as a parody of humanity that idiocy becomes frightful. Doubtless this is in part due to the fact that the human parody conjures up to us those saurian instincts, sleeping within our own souls, of which we are all squeamishly aware,—sleeping, but with a restless and uncertain sleep which only the perpetual commands of a vigilant intelligence can keep them from breaking: for the brutish ghost of unreason, buried deep in our being, is never securely laid. Its emergence in what we call the ‘mob soul’ seems to us a bestial thing; but when it comes forth in the apparel of reason—as now and again it does, both in individuals and in nations,—then it inspires in us the horror which besets all idiocy.

It is this same quality which makes our own created machines seem frightful. A machine has all the device of rational purpose, and none of its soul. In the parsimonious constriction of its elements and in their relentless application to determined motions, the machine is the very image of efficiency,—governed, deadly, predestinarian. But it is an efficiency against which nature cries out; it is an efficiency destitute of that adaptability of means and idealization of ends which is the humane essence of true reason. A theologically monstrous God administers a justice untempered by mercy; a soul made monstrous by its own miserliness warps life to one idea; nature without accident is ugly, and device with no latitude of adaptation is hideous. The poetry of tools attaches to the most primitive and the most generalized forms,—to the smith’s hammer, the woodman’s axe, the tiller’s hoe, to spindle and distaff, hearth and crane; the pen will never be replaced by the typewriter in the imagery of letters, nor the sword by the machine-gun in the imagery of war. Those old-fashioned locomotives with polished brass bands, floral ornaments, and personal names, were far more intimately human than the modern Molochs of the rails, serially numbered and mechanically interchangeable.

No author has pictured the horror that is inherent in mere device with more vivid imagination than has H. G.

Wells in such novels as *The First Men in the Moon* and *The War of the Worlds*. The first-named shows the fate of a man who here on earth is the arch embodiment of the 'coldly scientific reason,' when transported to the moon. That orb he finds honeycombed by a colony of ant-like beings, mocking man in size, but gifted in superhuman measure with intelligence of machines, so that they have reduced the whole lunar world to one efficient state, utterly 'socialized' and utterly soulless. In the presence of such monstrosity the earth-born scientist, still feeling the tug of his humanity, becomes insane. In this novel Wells holds up to deserved satire the conception of a mechanically organized world-polity; in *The War of the Worlds* he portrays with no less frank imagination the hideousness of mechanical efficiency when bent on destruction. His octopus-like Martians are in fact no more than embodied appetites provided with the narrow machinery of self-gratification. Until the present War, when Germany has displayed to the world their hateful likeness, such possible antagonists seemed indeed as remote as Mars. The striking difference in the two struggles, the fictive and the real, is that whereas Wells depicted human heroism as futile when thrown into contest with machine-endowed appetite, the War in Europe reads a different value into human heroism.

In material engines, things of wheels and levers, we see the exteriorization of one distortion of our natures,—undeviating application of all force to one determined end, which eliminates both the need for judgment and its exercise, and hence eliminates individual will. In our social machines,—all the carefully organized device of politics, industry, and war,—we see a similar exteriorization of distorted humanity, similarly precluding the general exercise of reason, enforcing intolerance, and destroying liberty. Publicly we have long felt a fear of such social machines, without any clear understanding of their import. In politics our distrust of party organizations, bosses, and professionalism, is such a fear; in industry it is reflected in our antipathy to irresponsible unions and 'soulless' cor-

porations, and again in our wistful harking back to the day of the likable jack-of-all-trades and to the poetry of handcrafts; in the matter of war it is present in our abjection before what we call 'militarism.' We vaguely realize the need of such social machines; we helplessly employ them; but all the time we regard them with animosity and assail them with abuse. If at times we concede a timorous admiration to their 'efficiency,' this is only to point the evil of their misapplied power. Especially since Germany has reared for us the specter of an organized mob, a reasonless appetite guided by reasonless ambition, have we become obsessed with panic,—now manifested in a clamorous demand that we surrender our reason and liberty in the building of a machine that will enable us to gratify our own meaner appetites, now in a weakling plea that we bury our heads in the sands, a trembling invitation to destruction, until the storm pass.

Both of these policies are contemptible surrenders to contemptible fears. There are facts that must be faced. Among them, first and inexorable, is the fact that human machines, social and physical, are growing in complexity with the increase in the numbers of men, as well as with the natural complexification of human wants. Primitivism is as natural to the mind burdened with the problems of civilization as is Utopianism; but it is even more visionary to dream of a return of an Arcadian past than to hope for a Millennial future. Democrats from Aristotle to Rousseau have framed as their ideal polity a small state, secluded in its prospects, moderate in its demands; yet both Aristotle and Rousseau lived on the eve of huge experiments in empire. Tacitus, amid the artifice of Cæsar's court, idealized the simple virtues of the German; while the whole mind of the artificial eighteenth century sought philosophic relief in its fantasy of the 'natural man.' But such dreamings are mere sirups for a jaded taste. The forward-facing man knows that human artifice must not and cannot be wrecked. Even were it desirable, there is possible no 'back to nature'; on the contrary, every coming

year must inevitably see mankind laying a more unhesitating and a more commanding hand upon Earth's body, until all her five continents and all her seven seas are bounded in his polity.

The future is not in the hands of those who fear human organization. But is it to be in the hands of men who command or of men who are commanded by the organizing machines? This is the radical question, and on its solution turns the way of our world,—whether it is to become an arena of free and rational endeavor or a circus given over to painted shows and the glutting of beastly appetites. There is no manner of doubt that the apparatus of organization is dangerous to the very intelligence that creates it; that in complicating the instrument we obscure the end; and that there is an unceasing peril lest we be blinded by our own device and snared by our own inventions. Hoist with their own petard, Americans are drowned by submarines of American contrivance; while the irony of the goosestep is that it is self-imposed. There are monarchs puppeted from birth, statesmen become the fools of their own diplomacies, soldiers who are but the mechanic slaves of the art of war,—all no better than the Siegesallée's nail-studded block in the image of Hindenburg;<sup>1</sup> but assuredly all no worse than are those pastes and casts of manliness which, in democracies, are blocked and reblocked to suit the raw greeds of political parties. It is no part of wisdom to deny the danger created by the machine, or that there is peril to its makers in social device. It may well be that the danger besets democracy even more than other forms

<sup>1</sup> African colonies bulk large in the War's controversies, and the place in the sun which Germany demands is mostly in the tropical sun. But is there no Nemesis in empire and has Germany got only good and learned no evil from her black colonies? To me, at least, the Hindenburg colossus is a grisly sign. The West Africans have a type of fetish called *Fetish-into-which-Nails-are-Driven*. The making of a fetish of this sort is a matter of tribal importance (I cite Dennett). "A palaver is held, and it is there decided whose *kulu* [soul] it is that is to enter into the *Muamba* tree and preside over the fetish to be made. A boy of great spirit, or else, above all, a great and daring hunter is chosen. Then they go into the bush and call his name. The *Nganga* priest cuts down the tree, and blood is said to gush forth. A fowl is killed and its blood is

of government: for democracy is, by its nature, nearer than are other forms to easy surrender to the sway of the reasonless mob. The ends which guide democratic societies are necessarily complex; indeed, complexity of end is just what makes them democratic,—“full of variety and disorder,” as Plato ironically puts it. Oligarchical states, on the other hand, have relatively simple ends, reflecting the fewer wills which define public purposes; and this simplicity of end makes easy not only that efficiency of self-seeking which we profess so to admire, but it also enables such states to keep in view their purposes with a directness which is impossible to the complex and disorderly democracy. Imperial Russia could follow the policy of a Peter for centuries, whereas America must blunder bloodily into the nationalism its institutions assume. Reason is assuredly put to a harder trial by the tumult of the Forum than by the devils of the Den.

But shall we therefore yield us to our fears? Legions have destroyed the Cæsar who created them, and the armies of republics have imperialized consuls. Arms forged for protection have been perverted to conquest, and federations for defense into empires of oppression. But must we for this abjure the right of freemen to maintain their liberty?

Militarism is not an embodiment in arsenals and armies; militarism is a surrender of the passion for righteousness to the panoply of war, and for a nation which can keep that passion strong and pure arsenals and armies present no peril. Those who cringe at the thought of the nation in

mingled with the blood that they say comes from the tree. The named one then dies, certainly within ten days. His life has been sacrificed for what the Zinganga consider the welfare of the people. They say that the named one never fails to die. . . . People pass before these fetishes calling on them to kill them if they do, or have done, such and such a thing. Others go to them and insist upon their killing so and so, who has done or is about to do some fearful injury. And as they swear or make their demand, a nail is driven into the fetish, and the palaver is settled so far as they are concerned. The kulu of the man whose life was sacrificed upon the cutting of the tree sees to the rest.” Has not Germany immured the soul of humanity in her nail-studded idols? *Africa capta ferum victorem cepit!*

arms are but visibly expressing their own moral weakness and their want of faith in the possibility of a just democracy. There is peril in a loaded gun; there may also be safety: in last analysis, it is the alertness of the controlling intelligence that decides. The same is true of the locomotive and its engineer; and the same of medicine and its practitioners, of industry and its captains, of courts of law and their magistrates, of all mechanical and social device and its devisers. We live in a kind of world and in an age of the world where devices of all sorts are growing in complexity, where, therefore, the necessity for alertness and self-mastery in the control of device is ever more urgent. If we are democrats we know that especial perils beset us, both because of the confusion of our aims and because it is easier for the mob than for the individual to mistake appetite for reason, and advantage for right. But if we are men, we shall not be craven because our world happens to be dangerous; and remembering that our machines are of our own make, we shall refuse to succumb to superstitious terrors.

hunc igitur terrorem animi tenebrasque necesset  
non radii solis nec lucida tela diei  
discutiant, sed naturæ species ratioque.

## II.

*Naturæ species ratioque!* The cure of superstitious terror is knowledge of Nature in her outward forms and knowledge of Nature in her inward reason; and this Lucretian cure is double because the peril of ignorance is double, outward and inward. The outer peril is that fear of mechanical things, grim mobilizations of material and personnel, which give us so huge an impression of power. But is not this monstrousness and deformity of machines due just to the fact of their automatism,—to their purposelessness or to our ignorance of the uses to which they may be put? And is not this ignorance itself an ignorance of our own intentions, of our own purposes and reason,—for machines are human tools? The inward peril is more

terrible than the outward, and it is the cause of the outward: what we see exteriorized in machines is human purposelessness, but purposelessness endowed with force. That force can act only under some direction; if the directing power be not foresight, it must be impulse and appetite, and impulse and appetite too often and too fearfully it is. Here is the deep peril of the soul. Our terror of things outward is due to the gloom of things inward—*terror animi tenebraeque*,—and of these twain superstitions 'tis the latter is most damning.

A Washington despatch, in the days just succeeding the breaking of relations with Germany, stated that President Wilson could not then define what, in his opinion, would constitute that overt act on the part of Germany which would bring him before Congress. But, said the despatch, the President is certain that when the time comes he will "feel" that it has come, Congress will "feel" that it has come, and the whole neutral world will "feel" that it has come. Intuition, emotion, the imperative inspiration of public feeling, these, rather than foresight and reason (so the despatch implied), were to govern the United States of America in a supreme crisis of her history. The event has proven the President wiser than the press, but it has not altered the fact of our public distrust of the public reason. When the citizens of a democratic nation are asked to repose an unenlightened confidence in its official leaders, leaving to them knowledge of the facts upon which national policy is to be based, and the option of its disclosure, this can only be because the self-reliance of reason is no article of the national faith,—because, in short, it has no belief in the democracy of rational judgment. The secret diplomacies which precede wars, and the political (as distinguished from military) censorships which accompany them are the inevitable expression of this unfaith, whose harsh corollary is flattery of impulse and idolatry of appetite.

Distrust of reason is the first descent. Beyond looms an altar to the Genius Publicus, and the wild adulation of a

sovereign mob running amuck beneath the pillars of the Forum. Choice between beasts of the arena and incense to Cæsar is next, and beyond that the images of grim Pharaohs and deathless majesticals asserting sway over men as insouciant gods. The Divine Right of the Lord's Anointed, be he Kaiser Wilhelm II or the Sovereign Voice of the American People, is the right of unreason over reason, of superstitious fear over intelligent purpose. In the history of political theory there are just two key conceptions. The one finds the source of sovereignty in blind and emotional acquiescences,—in belief in the holiness of rulerships (and even Dante was moved to this); belief in the right of the lust of power (which Machiavelli and Nietzsche proclaim); belief in the contagious benevolence of our natural sympathies (which is the text of Rousseau and the modern democrats). The other conception is the Greek, the Aristotelian conception, that the source of sovereignty and the authority of states is, or should be, reason and reason alone, and that the best state is that which is based upon the most intelligent inquiry into the purpose of human life. In the period of recorded history most states have blindly gone the blind way of superstition; few have followed the light of reason. But has this brought wisdom into human affairs?

The answer is the Great War, nation after nation, in the glass of disaster, revealing its deep stupidity. Latest is America, paralyzed in mind, waiting for a flood of emotion to give it guidance,—for whatever has been the intention of our leaders, this has been the public temper. Behind us is England, blundering haplessly, almost grotesquely, into a struggle she should have foreseen and prepared for. France, with her initial trust in the Belgian buffer, Russia, massive in ignorance, Austria, no less massive in recklessness,—all in their measure show the same unintelligence: for they seem to have entered into the conflict with the notion that it was to be a game, played according to political rules, and eventuating in political defeats and victories,—an illusion now long dissolved in their own spent blood.

But of them all none has suffered the delusion of a more colossal unintelligence than has Germany; none has so ghastlily grained the horror of unreason into the souls of men. The delusion is older than the War, which, indeed, is born of it; and it is a delusion doubly deceptive because veiled with the apparition of the reason it denies. I refer to that form of the divine right theory which Germany has made peculiarly her own, serving as her conscious vindication of the War, and in no small part as its pretext. Citation of source is beyond necessity, since the apostles of the “over-individual state” and the “trans-individual national soul” have proclaimed their creed unto all ears. But it is worth while to point out that this mystical super-state, whose sacramental body is the transubstantiated flesh of its citizens, is not (as is often enough inferred) a modern replication of the classical model. Greek and Roman lived and died *pro patria*; but in each case theirs was a fatherland looking directly and humanly to that good life of the citizen which their sages regarded as the end of statecraft. Socrates died out of fidelity to the law; and Vergil made law—sustaining the weak and abasing the arrogant—the justification of Rome. Even Marcus Aurelius, Stoic of the Cosmopolis, announces: “My will is to my neighbor’s as unrelated as my breath to his. Though we be, and in high degree, made for one another, yet in the inner self each has his own sovereign right.” The debate of the Athenian envoys with the Melians, on the verge of outrage, has been more than once cited as the ancient parallel to Germany’s outrage upon Belgium; but even here there was no ghastly pretence of righteousness urged as excuse of cruelty; on the contrary, the Athenians employed (as William James remarked) a “sweet reasonableness” which is entirely open in its appeal to what is consciously brutal in human nature. “As for the gods,” they said, “we expect to have quite as much of their favor as you: for we are not doing or claiming anything which goes beyond common opinion about divine or men’s desires about human things. For of the gods we believe, and of men we know, that by a law of their nature wherever they can rule they will.”

The true parallel to the doctrine of the divine right of *Kultur* is the Muslim *Allah ilah Allah!* sung to the naked scimetar; or better, it is the benign blight spread by the pious Incas over Andean America. Indeed, there is no book which so brilliantly illuminates the pages of contemporary history—when the understanding of Germany is the problem—as does the *Royal Commentaries* of Garcilasso. When Manco Capac received his commission from “Our Father, the Sun,” the Divine One said to him: “I take care to go round the earth each day, that I may see the necessities that exist in the world, and supply them, as the sustainer and benefactor of the heathen. I desire that you shall imitate this example as my children, sent to earth solely for the instruction and benefit of those men who live like beasts. And from this time I constitute and name you as kings and lords over all the tribes, that you may instruct them in your rational works and government.” Naturally this large commission from on high was given a liberal interpretation; and speedily we find Lloque Yupanqui, the third Inca, resolving that “arms and power” as well as “prayers and persuasion” should form an agent for the spread of the light. “But the natives of Ayaviri,” writes the chronicler, “were so stubborn and rebellious that neither promises, nor persuasion, nor the examples of the other subjugated Indians were of any avail. They all preferred to die defending their liberty. . . . So they came forth to fight, with no wish to hear reason, obliging the Incas to arm their men rather in self-defence than for attack.” This was the prologue—the first ‘defensive conquest’ by which the Children of the Sun obeyed that inner *Drang* which, in its epilogue, clamped their tyranny over civilized South America, obliterating those peoples who “had their own gods with whom they were at accord, desiring no other,” and converting the valleys into cemeteries of lost art.

Superstition of this type—asserting the inspiration of a reason that is above reason—is the last refinement of the barbarous soul. We see it in the Germany of to-day, is-

suing like a murk Jinni at the summons of the Lord of the Lamp, to horrify mankind. In it is no trace of the Greek devotion to the law of human nature (fair or foul); none of the Roman reverence for the *leges regiae, jus gentium, and mos pacis*, that

totum sub leges mitteret orbem.

Rather it embodies all the monstrosity and frightfulness of human instincts when recognizing no excess in their satisfaction, and of brutish credulity made only the more hateful by its assumption of the mask of rationality. When men pose as gods, humanity is lost. In a recent play (Dunsaney's *The Gods of the Mountain*) a woman pleads with the beggar who would be god:

“Master, my child was bitten in the throat by a death-adder at noon.  
Spare him, master; he still breathes, but slowly.”

“Is he indeed your child?”

“He is surely my child, master.”

“Was it your wont to thwart him in his play, while he was strong and well?”

“I never thwarted him, master.”

“Whose child is death?”

“Death is the child of the gods.”

“Do you that never thwarted your child in his play ask this of the gods?”

“Master!”

“Weep not. For all the houses that men have builded are the play-fields of this child of the gods.”

### III.

The Greeks were the first democrats, and the Greeks best understood the virtues of democracy. Virtue, they said, is a mean between indulgence and abnegation,—as we might say, between impulse and automatism,—and the anchorage of virtue is self-knowledge, self-control, and self-trust. Autocracies take away individual responsibility, substituting the dark commands of imperious rulers, who sardonically hide their own mean appetites behind a pious countenance. But democracies, which grant responsibility without a corresponding appeal to reason, kindling indulgent impulse rather than stimulating the labor of

thought, play with a dreadful fire. Irruptive and explosive passion, not the dry and stringent truth, guides their behavior, which is rather to be described as a gambling with human nature than as a true politic.

Fortunately, as there is a mean in private conduct, which is private virtue, so there is a mean in political conduct, which is democratic virtue. It is founded upon faith in human nature, but upon that part of human nature which is most like daylight, man's reason. It abjures fear of human instruments, be they corporations or armies, because it understands their use and its own purposes in employing them. It banishes superstitious reverence for impulse, because it recognizes in intelligent will a safer guide. It owns no loyalty save to truth; it knows no liberty save in its own exercise; it champions no equality that is not proportionate with the good. For its maintenance this democratic virtue demands of the democratic citizen that he keep a militant vigil over his citizenship. In the moral world there is no *laissez-faire*: responsibility is relentless. Virtue, like life, is an equilibrium with a high center of gravity; and human societies, like upright human bodies, must preserve their precarious balance by unceasing effort. Nay, the truest image of the democratic state is that which the battle-field affords in the flight and contest of the aviators; for the salvation of democracy depends upon that same combination of unflagging activity and alert judgment which makes the aviator's duty so perilous and so inspiring. As with aviators, so with democracies, destruction is swift and easy; and as with aviators safety is measured by the power of the machine and the sagacity of the training, so in democracies there is no security save in strong engines guided by clear vision and hands trained beyond trembling. And back of these, and supporting all, what makes both aviators and citizens is belief in the manliness of men.

The United States is at war, and in a just cause. If the even hand of justice be maintained, the war, though it will surely be hard, will be no lasting evil. Our peril is not

lest we shall not fight effectively. Our deeper peril is lest we do not think cleanly, answering the justice of our cause with just action, and purifying our judgment of others by as stern and true a judgment of ourselves. The Greeks were the first democrats, and over the shrine of the god of enlightenment they placed the word:

ΓΝΩΘΙ ΣΑΤΤΟΝ

HARTLEY B. ALEXANDER.

UNIVERSITY OF NEBRASKA,  
LINCOLN, NEBR.